3D Blaster Savage 4™

Product Guide

Product Guide

3D Blaster™ Savage 4

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Compliance

This product conforms to the following Council Directive:

- Directive 89/336/EEC, 92/31/EEC (EMC)

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Introduction

Thank you for purchasing Creative's 3D Blaster™ Savage4™!

3D Blaster Savage4 is an integrated 2D/3D/video accelerator card suitable for general-purpose graphics applications, including word processing, Web navigation, digital imaging, and games.

3D Blaster Savage4 uses S3's Savage4 128-bit graphics controller. The Savage4 is a dual pipeline engine capable of processing and combining two textures simultaneously. This gives software developers the ability to create realistic real-time visual effects such as bump mapping, environmental mapping, and dual texturing. These features are important not only for the latest games, but also for the more sophisticated user interfaces that are beginning to appear in business applications.

Its flexibility, combined with a balanced mix of features and performance, makes the 3D Blaster Savage4 an excellent choice for building a low- to mid-priced system.

Read this booklet to get started quickly.

Serial and Model Numbers

Your card's serial and model numbers can be found at the back of the card. We recommend that you record the serial and model number below.

Table 1: Serial numbers and model numbers.

Hardware	Product Codes	Numbers
3D Blaster Savage4	Serial Number	
	Model Number	

Before You Begin

The README file on the CD-ROM contains information not available at the time of printing. Read the file before you continue. In addition, read the following:

- ❑ Minimum System Requirements
- ❑ Updating Drivers

Minimum System Requirements

- ❑ IBM® PC or 100% compatible
- ❑ Pentium® II or Pentium III processor running at 200 MHz or higher
- ❑ 32 MB RAM
- ❑ 15 MB free hard disk space
- ❑ Vacant 32-bit AGP 2x 1.0 expansion slot
- ❑ VGA monitor
- ❑ CD-ROM drive
- ❑ Windows 95 or Windows 98 or Windows NT 4.0

Updating Drivers

To download the latest Savage4 drivers, visit Creative's Web site (http://www.cle.creaf.com).

Preliminary step for Windows 95 users

Check the appropriate box so that you can refer to the Windows' version number quickly during the software installation process.

Since Windows automatically detects new hardware and starts the software installation procedure upon startup, you should verify your Windows version number before installing the graphics card.

To verify your Windows 95 version number

1. Click **Start** -> **Settings** -> **Control Panel**.
2. In the **Control Panel** window, double-click the **System** icon.
   Your Windows 95 version number is displayed in the **General** tabbed page of the **Systems Properties** dialog box.
3. Note the version number.
   The following are the possible Windows 95 version numbers:
   - ❑ 4.00.950 (Retail version)
   - ❑ 4.00.950A (Retail version)
   - ❑ 4.00.950B (OSR version 2 and 2.1)
   - ❑ 4.00.950C (OSR version 2.5)

Knowing and Installing Graphics Card

This section shows you the connectors on the 3D Blaster Savage4 card. It also shows you how to install the card.

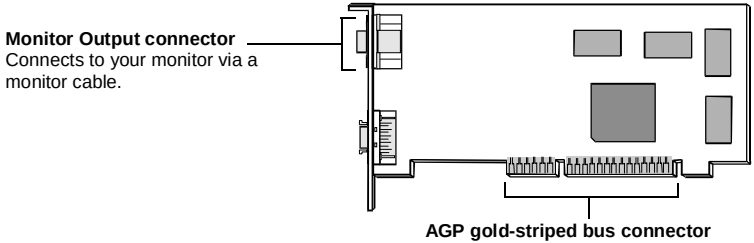

Figure 1: The 3D Blaster Savage4 card.

To install the graphics card

If you are replacing an existing VGA card with 3D Blaster Savage4, please remember to remove the existing VGA card.

1. Switch off your computer and all peripheral devices.
2. Disconnect the power cord from the wall outlet.
3. Touch any metallic surface on your computer to discharge any static electricity.
4. Remove the computer cover.
5. Locate a free AGP expansion slot.
   Figure 2 shows the various types of expansion slots.
6. Remove the metal plate from the free expansion slot.
   Keep the screw and metal plate for future use.
7. Align the bus connector of the graphics card with the expansion slot.
8. Press the card's bus connector gently and evenly into the slot, making sure that the bus connector comes into full contact with the slot. Then, secure the card to the computer casing with a screw. See Figure 3 below.

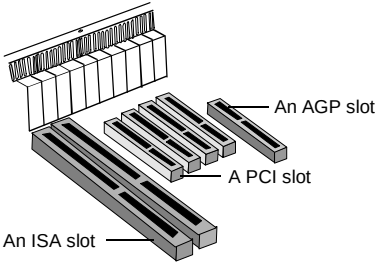

Figure 2: Types of expansion slots.

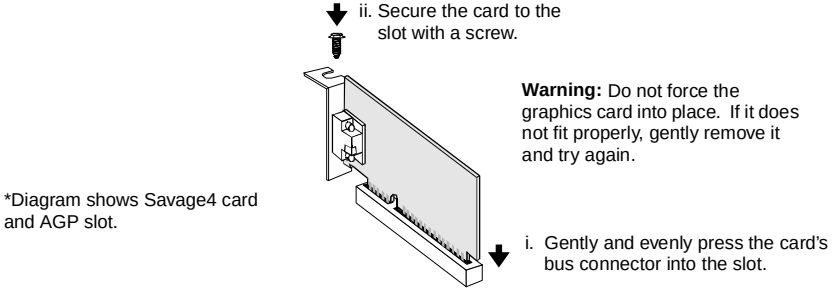
ii. Secure the card to the slot with a screw.
Warning: Do not force the graphics card into place. If it does not fit properly, gently remove it and try again.
*Diagram shows Savage4 card and AGP slot.
i. Gently and evenly press the card's bus connector into the slot.

Figure 3: Securing the graphics card to the slot.

9. Replace the computer cover and plug the power cord back into the wall outlet.

10. Connect the monitor cable to the VGA Out connector of 3D Blaster Savage4, as shown below.

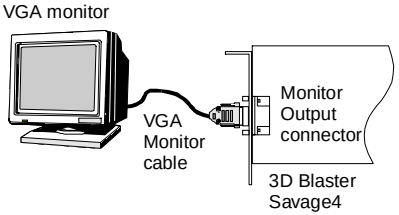

Figure 4: Connecting your VGA monitor to 3D Blaster Savage4.

If you are using a multi-frequency monitor, you may need a special 15-pin PS/2-compatible adapter cable. If your multi-frequency monitor allows you to switch between 'TTL' and 'analog' operation modes, set the switch to 'analog'. For details, refer to your monitor's manual.

Installing Software

After installing the graphics card, you can install the software. The 3D Blaster Savage4 CD contains the following:

- ❑ Drivers for Windows 95/98 (common to both)
- ❑ Drivers for Windows NT 4.0
- ❑ Creative Enhanced BlasterControl for Windows 95/98 and Windows NT 4.0
- ❑ Creative SoftMPEG for Windows 95/98
- ❑ S3 METAL drivers
- ❑ OpenGL ICD driver for Windows 95/98 and Windows NT 4.0
- ❑ Colorific™ for Windows 95/98 and Windows NT 4.0
- ❑ 3Deep™ for Windows 95/98 and Windows NT 4.0

This section is organized as follows:

- ❑ To install in Windows 95 (Retail version)
- ❑ To install in Windows 95 (OSR version 2.1 and later)
- ❑ To install in Windows 98
- ❑ To install in Windows NT 4.0 (Service Pack 3)

To install in Windows 95 (Retail version)

1. Switch on your system.
   Windows 95 automatically detects the graphics card.
   A **New Hardware Found** message box appears, informing you that a display adapter has been detected.
2. When a dialog box similar to Figure 5 appears, ensure that the **Driver from disk provided by hardware manufacturer** option is selected.
3. Click the **OK** button.
4. Insert the 3D Blaster Savage4 CD into your CD-ROM drive.

*Figure 5: Selecting the **Driver from disk provided by hardware manufacturer** option.*

5. In the **Install From Disk** dialog box, type **D:\WINDOWS** (where D: represents your CD-ROM drive) and click the **OK** button.
6. If prompted to select drivers, click the **3D Blaster Savage4** drivers.
   The drivers are copied to your system.
7. When prompted to restart your system, click the **Yes** button.
8. After the system has restarted, proceed to install the applications.
   Click **Start** -> **Run**.
9. In the **Run** dialog box, type **D:\WINDOWS\SETUP** and click the **OK** button.
10. Follow the instructions on the screen to complete the setup.
    If you do not install all the applications now, you can install them later.

To install in Windows 95 (OSR version 2.1 and later)

1. Switch on your system.
   Windows 95 automatically detects the graphics card.
   A **New Hardware Found** message box appears, informing you that a display adapter has been detected.

2. When a dialog box similar to Figure 6 appears, click the **Next** button.
3. Click the **Other Locations** button when it appears in the **Update Device Driver Wizard** dialog box.
4. Insert the 3D Blaster Savage4 CD into your CD-ROM drive.
5. In the **Select Other Location** dialog box, type **D:\WINDOWS** (where D: represents your CD-ROM drive) and click the **OK** button.
6. In the **Update Device Driver Wizard** dialog box, click the **Finish** button.

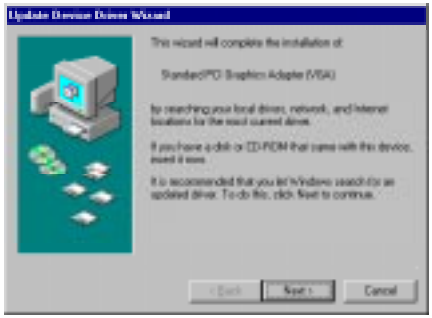

*Figure 6: The **Update Device Driver Wizard** dialog box.*

7. In the **Insert Disk** message box, click the **OK** button.
8. In the **Copying Files** dialog box, type **D:\WINDOWS** and click the **OK** button.
9. In the **Update Device Driver Wizard** dialog box, click the **OK** button.
10. When prompted to restart your system, click the **Yes** button.
11. After the system has restarted, proceed to install the applications.
    Click **Start** -> **Run**.
12. In the **Run** dialog box, type **D:\WINDOWS\SETUP** and click the **OK** button.
13. Follow the instructions on the screen to complete the setup.
    If you do not install all the applications now, you can install them later.

To install in Windows 98

1. Switch on your system.
   Windows 98 automatically detects the graphics card.
   An **Add New Hardware Wizard** message box appears, informing you that a display adapter has been detected.

2. When a dialog box similar to Figure 7 appears, ensure that the **Display a list of all the drivers in a specific location, so you can select the driver you want** option is selected.
3. Click the **Next** button.
4. Insert the 3D Blaster Savage4 CD into your CD-ROM drive.

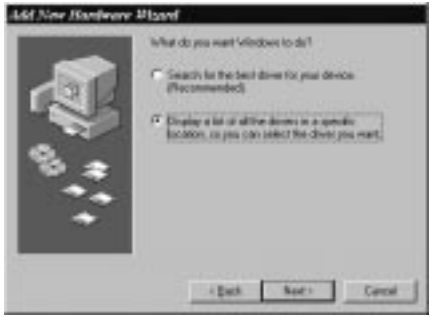

*Figure 7: Selecting the **Display a list of all the drivers in a specific location, so you can select the driver you want** option.*

5. When a dialog box similar to Figure 8 appears, click the **Have Disk** button.
6. In the **Install From Disk** dialog box, type **D:\WINDOWS** (where D: represents your CD-ROM drive) and click the **OK** button.
   If you are installing Savage4 as a second or subsequent card to make use of Windows 98's multi-monitor capability, you will see an **Update Driver Warning** message telling you that the driver you have selected may not work correctly. You *must* click the **Yes** button to confirm that you want to use the selected driver. Otherwise, the system will install the wrong driver and will not recognize the card as a Savage4 card (for details, see "Windows 98 Multi-Monitor Display Problems" on page 21).

*Figure 8: Clicking the **Have Disk** button.*

If you are installing two or more Savage4 cards, verify that each Savage4 card is working properly with its corresponding monitor after completing the hardware and driver installation. Repeat this procedure for each subsequent card.

7. In the **Select Device** dialog box, make sure the 3D Blaster Savage4 entry in the **Models** list is selected and click the **OK** button.
8. Click the **Next** button.
9. Click the **Finish** button.
   The drivers are copied to your system.
10. When prompted to restart your system, click the **Yes** button.
11. After the system has restarted, proceed to install the applications.
    Click **Start** -> **Run**.
12. In the **Run** dialog box, type **D:\WINDOWS\SETUP** and click the **OK** button.
13. Follow the instructions on the screen to complete the setup.
    If you do not install all the applications now, you can install them later.

To install in Windows NT 4.0 (Service Pack 3)

1. Click **Start** -> **Run**.
2. In the **Run** dialog box, type **D:\WINNT40\SETUP** and click the **OK** button.
3. Follow the instructions on the screen to complete the setup.
   If you do not install all the applications now, you can install them later.
4. If the Invalid Display Settings message box appears after your system has restarted, click the **OK** button and change the display settings.
   For details, see “To change the display settings in Windows NT 4.0” on page 10.

Changing Settings

To change the display settings in Windows NT 4.0

1. Right-click your desktop, and then click **Properties** on the shortcut menu.
2. In the **Display Properties** dialog box, click the **Settings** tab.
3. In the **Desktop Area** group box, move the slider to set the desired resolution.

4. In the **Color Palette** group box, select the desired color. Certain colors may not be available for some display resolutions.
5. In the **Refresh Frequency** group box, select the desired refresh rate.
6. To test the settings, click the **Test** button, and then click the **OK** button.
   When the **Testing Mode** dialog box re-appears:
   - If the test bitmap is properly displayed, click the **Yes** button.
   - If not, click the **No** button. A warning message will be displayed. Click the **OK** button and repeat steps 3 through 6, changing one or more of the settings.
7. Click the **OK** button to close the **Display Properties** dialog box.

To change the performance settings in Windows 95/98 and Windows NT 4.0

You can customize the settings of your graphics card for optimal performance with applications. However, if your monitor display exhibits pixel drop (that is, pixels, usually white in color, appear on the screen) or any other abnormal behavior, revert to the factory default settings (see page 20 under "Troubleshooting").

To do so in Windows 95 and Windows NT 4.0

1. Right-click your desktop, and then click **Properties** on the menu that appears.
2. In the **Display Properties** dialog box, click the **BlasterControl** tab.
3. On the **BlasterControl** tabbed page, click the **Advanced** icon.
4. Select the desired settings and click the **OK** button.
   To see a brief description of an option or check box in the **BlasterControl Advanced** module, right-click the item, and then click **What's This**.
   For details on changing the settings, refer to "Configuring Advanced Settings" in the Help file for 3D Blaster Savage4.

To do so in Windows 98

1. Right-click your desktop, and then click **Properties** on the menu that appears.
2. In the **Display Properties** dialog box, click the **Settings** tab.
3. On the **Settings** tabbed page, click the **Advanced** button.
4. In the **Advanced Properties** dialog box, click the **BlasterControl** tab.
5. Select the desired settings and click the **OK** button.
   To see a brief description of an option or check box in the **BlasterControl Advanced** module, right-click the item, and then click **What's This**.

About Sonnetech Colorific®/ 3Deep

Colorific

Colorific color management software is the industry-standard process for monitor-to-monitor and monitor-to-printer color management. It gives you accurate, predictable color-matching between your screen and printer or over the Internet by calibrating the colors on your monitor. The software leads you through a series of simple choices about what you see on your screen. From this information, Colorific builds a precise description of how your monitor displays color, taking into account variable viewing conditions, monitor control settings, and video card adjustments.

Running Colorific

You should calibrate with Colorific before doing critical color work and whenever you change monitor color settings.

- ❑ If your monitor has a color temperature control, adjust it to 5000 K or 6500 K to get the best results.
- ❑ When printing to an inkjet printer, it is best to use special coated paper.

To run Colorific in Windows 95, Windows 98 and Windows NT 4.0

1. Click the **Colorific Control Panel** icon in the taskbar.
   The **Display Properties** dialog box appears.
2. Click the **Colorific** tab.
3. Click the **Recalibrate** button.
   The **Colorific** calibration utility is opened.
4. Follow the instructions on the screen to complete the process.

3Deep

3Deep is an exciting new tool (supporting Windows 95 and Windows 98) that allows gamers to experience 3D games as the game developers intended. Only 3Deep can provide accurate 3D lighting and shading for 3D games because it adjusts the user's monitor.

3Deep uses Colorific's technology (the industry standard for monitor calibration) to measure the unique characteristics of each gamer's display. No more dark games, and no more washed out games when you increase the contrast of your monitor. The results are awesome 3D lighting and shading effects. 3Deep is a consistent, and high-quality solution for improving the 3D effects of your games.

Using 3Deep

To use 3Deep to calibrate your monitor's gamma value

1. Click **Start** -> **Settings** -> **Control Panel**.
2. In the **Control Panel** window, double-click the **3Deep** icon.
3. On the **3Deep Control Panel**, move the **Tweak** slider or click the **Calibrate Display** button.

You can also display the **3Deep Control Panel** by doing the following:

1. Right-click your desktop, and then click **Properties** on the shortcut menu.
2. In the **Display Properties** dialog box, click the **3Deep** tab.

To uninstall Colorific in Windows 95/98/ and Windows NT 4.0, and 3Deep in Windows 95/98

1. Right-click the **Colorific Control Panel** icon in the taskbar.
2. On the menu that appears, click **Exit**.
3. Click **Start** -> **Settings** -> **Control Panel**.
4. In the **Control Panel** window, double-click the **Add/Remove Programs** icon.
   The **Add/Remove Programs Properties** dialog box appears with the **Install/Uninstall** tabbed page displayed.
5. Select the entry **Colorific For Windows** from the list, and then click the **Add/Remove** button.
6. After **Colorific For Windows** is removed, select the **3Deep** entry from the list, and then click the **Add/Remove** button.

Getting More Information

For 3D Blaster Savage4

The Help file for 3D Blaster Savage4 gives a brief introduction to the features supported by your graphics card.

To open the Help file BCSAV4.HLP

- Click **Start** -> **Programs** -> **Creative** -> **3D Blaster Savage4** -> **3D Blaster Savage4 Help**.

For Creative BlasterControl

The Help file for Creative BlasterControl shows you how to use the BlasterControl utility to customize your screen resolution, color depth, and refresh rate in Windows 95, Windows 98 and Windows NT 4.0.

To open the Help file BLSTCTRL.HLP

- Click **Start** -> **Programs** -> **Creative** -> **BlasterControl Help**.

For Help topics specific to a BlasterControl module

- In the BlasterControl module you want, click the **Help** button.

For Creative SoftMPEG

The Help file for Creative SoftMPEG teaches you how to use SoftMPEG to play Video CDs and MPEG files.

To open the Help file CTVCDPLY.HLP

- In Creative SoftMPEG, right-click the **Video** window and click **Help** on the menu that appears.

For Colorific and 3Deep

The Help file for Colorific contains the User's Manual.

You can also print a copy of the User's Manual, MANUAL.RTF, found in the Documents folder on the installation disk.

To open the Help file for Colorific

1. Click **Start** -> **Programs** -> **Colorific**.
   The Colorific calibration utility is opened.
2. On the right-hand corner of the menu bar, click **Help**.
3. On the **Help** menu, click **Help Contents**.

To open the Help file for 3Deep

1. Click **Start** -> **Settings** -> **Control Panel**.
2. In the **Control Panel** window, double-click the **3Deep** icon.
3. On the **3Deep Control Panel**, click the **Help** button.

Technical Support

Updated information about using Colorific and 3Deep can be obtained from Sonnetech's Web site at www.colorific.com. Alternatively, you can call Sonnetech's 24-hour fax-on-demand system at (415) 957-9941 with a fax phone. If you cannot find the information you need from these sources or in the program's Help screens, call Colorific Technical Support at (415) 957-0152 or send an e-mail message to info@colorific.com.

Technical Specifications

Architecture Highlights

- 128-bit S3 Savage4 PRO graphics accelerator
- AGP 2X with sideband addressing support
- 32 MB
- 300 MHz RAMDAC
- S3 texture compression (S3TC)

3D Features

- Hardware triangle setup engine
- Dual texture pipelines capable of processing two textures onto one pixel per clock
- Single-pass multiple textures enable spectacular visual effects such as bump maps, environmental maps, light maps, and reflection maps
- 125 million pixels/second sustains, trilinear filtered
- Compatible with DirectX 6.0
- Point, bilinear, trilinear, and anisotropic filtering, with support for mipmapping
- Specular lighting and diffuse shading
- 16, 24, or 32-bit Z-buffering
- DirectX 6 texture compression (S3TC)
- Full-scene anti-aliasing
- 32-bit true color rendering

2D Features

- ❑ 100% compatible VGA core
- ❑ VBE 2.0 compatible
- ❑ 128-bit GUI engine accelerates Windows GDI functions
- ❑ Pipeline accelerates 8, 16, and 32-bit per pixel modes

Video Features

- ❑ Supports multiple video windows
- ❑ Hardware color space conversion (YUV 4:2:2 and 4:2:0)
- ❑ Motion compensation to accelerate software DVD decoding
- ❑ Multitap bilinear filter maintains image quality when resizing video
- ❑ De-interlacing using Bob-and-Weave de-interlacing
- ❑ VIP video port for external DVD, video capture, or TV tuner cards

Card Specifications

- ❑ AGP 2X with sideband addressing support
- ❑ VGA
- ❑ VIP video port
- ❑ PC99 rev 1.0 compliant
- ❑ VESA DDC2B compatible

AGP 1.0 Compliant

- ❑ Optimized support for sideband addressing, with the ease of Plug and Play installation

Addressing and Interrupts

- ❑ Plug and Play configurable I/O addresses and interrupts

Software

- ❑ Windows 95, Windows 98 and Windows NT 4.0 display drivers
- ❑ OpenGL, DirectDraw, and Direct3D drivers
- ❑ VBE 2.0 compliant

Utilities

- ❑ Creative Enhanced BlasterControl

- ❑ Creative SoftMPEG
- ❑ Sonnetech Colorific/3Deep

Resolutions and Refresh Rates Supported

- The refresh rates shown in the table are the highest obtainable and are monitor-dependent. Resolutions, pixel depths, and refresh rates are also dependent on the driver and the amount of memory available on your Savage4 board. Therefore, some of them may not be available for certain applications or operating systems.

Table 2: 2D and 3D resolutions and refresh rates supported.

Refresh Rates (Hz)	**Number of colors**		
Resolution	**256 (8 bpp)**	**64 K (16 bpp)**	**16.8 M (32 bpp)**
640x480	60, 70, 75, 85, 100, 120, 140, 150	60, 70, 75, 85, 100, 120, 140, 150	60, 70, 75, 85, 100, 120, 140, 150
800x600	56, 60, 70, 75, 85, 100, 120, 140, 150	56, 60, 70, 75, 85, 100, 120, 140, 150	56, 60, 70, 75, 85, 100, 120, 140, 150
1024x768	60, 70, 75, 85, 100, 120	60, 70, 75, 85, 100, 120	60, 70, 75, 85, 100, 120
1152x864	60, 70, 75, 85, 100	60, 70, 75, 85, 100	60, 70, 75, 85, 100
1280x1024	60, 70, 75, 85	60, 70, 75, 85	60, 70, 75, 85
1600x1200	60, 70, 75, 85	60, 70, 75, 85	60, 70
1920x1200	60	60	60

Troubleshooting

System Hangs, Blank Screen or Corrupted Display

After installing 3D Blaster Savage4 and starting your system, the monitor displays a blank screen.

Solutions Try the following:

- ❑ Switch off your system and wait a while before switching it on again.
- ❑ Verify that any built-in VGA on your motherboard is disabled and that you have removed any other video display card from your system.
- ❑ Ensure that your 3D Blaster Savage4 card's bus connector is fully inserted into the expansion slot. Ensure this by pressing it gently and evenly into the slot.
- ❑ Verify that the pins of your monitor's VGA Input connector are not bent and that the connector is properly connected to the VGA Out connector of 3D Blaster Savage4.

Windows 98 Multi-Monitor Display Problems

The monitor connected to the second or successive Savage4 card remains blank even though the card and its drivers have been installed.

Cause If Savage4's drivers are not specified during the software installation (see "To install in Windows 98" on page 8), the system installs the second or successive Savage4 card as a VGA card which does *not* support Windows 98's multi-monitor feature.

Solution Update the device drivers to Savage4's drivers:

1. Right-click your desktop, and then click **Properties** on the shortcut menu.
2. In the **Display Properties** dialog box, click the **Settings** tab.
3. On the **Settings** tabbed page, click the **Advanced Properties** button.
4. In the **Advanced Display Properties** dialog box, click the **Change** button.
5. In the **Select Device** dialog box, click the **Have Disk** button.
6. Insert the 3D Blaster Savage4 CD into your CD-ROM drive.
7. Follow steps 6 through 13 of the procedure in "To install in Windows 98" on page 8 to complete the update.

Other Display Problems

For the resolutions supported by your monitor, refer to its manual.

Monitor display flickers after Windows 95 or Windows 98 starts.

Cause Your monitor may not support the resolution or refresh rate that you have set.

Solution Use display settings supported by the monitor.
To change the display settings:

1. Restart your system in Windows 95/ Windows 98 **Safe mode**. To do so:
   a. Restart your system and when the message "Starting Windows 95..." or "Starting Windows 98..." appears, press <F8>.
   A list of options such as **Safe Mode** and **Command Prompt Only Mode** appears.
   b. Select **Safe Mode** and press <Enter>.
2. After your system has restarted, right-click the desktop and click **Properties**.
3. In the **Display Properties** dialog box, click the **Settings** tab.
4. Try the following:
   - ❑ Make sure that the correct monitor is selected.
   To verify, click the **Change Display Type** button or the **Advanced Properties** button on the **Settings** tabbed page.
   - ❑ Use a lower refresh rate or the adapter's default.
   For details on this, refer to the topic "Using BlasterControl Monitor Settings" in the BlasterControl Help file.
   - ❑ Lower your monitor's resolution.
   To do so, adjust the color depth and desktop area on the **Settings** tabbed page.

Monitor display exhibits pixel drop (that is, pixels, usually white in color, appear on the screen) or other abnormal behavior.

Cause The settings that you have selected for your graphics card may be incompatible with one or more games or applications that you are running.

Solution Use the factory default settings:

1. Right-click your desktop, and then click **Properties** on the shortcut menu.
2. In the **Display Properties** dialog box, click the **BlasterControl** tab.
3. On the **BlasterControl** tabbed page, click the **Advanced** icon.
4. Click the **Factory Default** button.

Beeping Sounds During System Startup

When the system is starting up, there is a series of prolonged beeps.

Cause Your 3D Blaster Savage4 card may not be firmly inserted into the expansion slot.

Solution Ensure that the bus connector of the graphics card is fully inserted into the expansion slot. Ensure this by pressing the card gently and evenly into the slot. You can also try removing the card and re-inserting it.

Problems Installing Software

In Windows 95 or Windows 98, the installation program for BlasterControl and SoftMPEG does not run automatically after you have inserted the installation CD into your drive.

Cause The AutoPlay feature in your Windows 95 or Windows 98 system is not enabled.

Solution To install the software from the CD:

1. Double-click the **My Computer** icon on your Windows 95 or Windows 98 desktop.
2. In the My Computer window, double-click the **Creative Savage4** icon. If the installation program does not run, double-click the Win95/Win98 folder icon followed by the **Setup** icon.
3. Follow the instructions on the screen to complete the installation.

Problem with PCI Bridge (in Windows 95)

After installing Savage4 (AGP) onto a Pentium II LX system or any other AGP system, the Resources tabbed page of the Savage4 Properties dialog box in Windows 95 shows resource conflicts similar to the following:
Memory Range used FEDC0000 - FEDDFFFF used by PCI standard PCI-to-PCI bridge.
Memory Range used FD800000 - FDFFFFFF used by PCI standard PCI-to-PCI bridge.
Memory Range used FE000000 - FE7FFFFF used by PCI standard PCI-to-PCI bridge.

Cause The "PCI standard PCI-to-PCI bridge" is the CPU chipset to AGP controller, which Windows 95 cannot identify properly.

Solution No action required.
A conflict between the AGP video controller and the "PCI standard PCI-to-PCI bridge" in the Windows 95 Device Manager does not affect the functionality of the AGP card within Windows 95. This problem is common to all AGP graphics cards and does not affect Savage4's functionality. It has been resolved in Windows 98.

Problems Using Software

When you restart Windows, one of the following error messages appears:

- ❑ "BlasterControl will only work on Creative graphics product drivers. Do you want BlasterControl to be loaded the next time you start Windows?"
- ❑ "BlasterControl will only work on Creative graphics product drivers."

Cause 3D Blaster Savage4 drivers, required by BlasterControl, may have been replaced by other drivers when you installed DirectX applications.

Solution Re-install or revert to the 3D Blaster Savage4 drivers.
To revert to the drivers:

1. Right-click your desktop, and then click **Properties** on the shortcut menu.
2. In the **Display Properties** dialog box, click the **Settings** tab, and then click the **Change Display Type** button or the **Advanced Properties** button.
3. In the **Adapter Type** group box or on the **Adapter** tabbed page, click the **Change** button.
4. In the **Select Device** dialog box, click **3D Blaster Savage4**, and then click the **OK** button.
5. In the **Insert Disk** message box, click the **OK** button without inserting any CD.
6. If 3D Blaster Savage4 drivers and later versions of DirectX drivers are already installed, click the **Skip File** button until the **Adapter Type** group box or the **Adapter** tabbed page appears.
7. Click the two **Close** buttons to close the **Display Properties** dialog box.
8. When prompted to restart your system, click the **Yes** button.
   After you have restarted your system, the newer DirectX drivers will work with the latest 3D Blaster Savage4 drivers.

Problem with AGP Aperture Size

Changing settings in CMOS incorrectly can cause the system to stop functioning.

Some of the steps from step 3 onwards may not apply to your system's CMOS. Refer to your system's CMOS documentation for more details.

DirectDraw/Direct3D fails to use hardware acceleration (HAL).

Cause The CMOS setting for the AGP Aperture size is less than 8 MB.

Solution Set the AGP Aperture size to 8 MB or more.
Do the following in CMOS:

1. Restart your system.
2. During the memory check, press <Delete>.
   The CMOS setup menu appears.
3. Select **Chipset Features Setup** and press <Enter>.
4. Set your **AGP Aperture Size (MB)** to **8 MB** or more.
5. Press <Esc> to return to the CMOS setup menu.
6. Select **Save & Exit Setup**, and then press <Enter>.
7. Press <Y> and then press <Enter>.